Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
A321.9
Ag8

HOME ECONOMICS RESEARCH REPORT NO. 7

LIBRARY
CURRENT SERIAL RECORD
★ MAR 18 1959 ★
U. S. DEPARTMENT OF AGRICULTURE

Fatty Acids in Food Fats

UNITED STATES DEPARTMENT OF AGRICULTURE

U

FATTY ACID CONTENT OF FOOD FATS, UNSAPONIFIABLE MATTER, AND IODINE VALUE
(Grams per 100 grams ether extract or crude fat)

Food fat or oil	Saturated fatty acids			Unsaturated fatty acids				Other	Unsaponifiable matter	Iodine value
	Total[1]	Palmitic C_{16}	Stearic C_{18}	Total	Oleic $C_{18}(-2H)$	Linoleic $C_{18}(-4H)$	Linolenic $C_{18}(-6H)$			
ANIMAL PRODUCTS										
Meats:										
1. Beef	48	28	19	47	44	2	[2]Trace	1	--	47
2. Buffalo	66	34	28	30	24	1	--	5	Trace	31
3. Deer	63	24	34	32	24	3	2	3	Trace	36
4. Goat	57	26	24	37	33	2	--	2	2	33
5. Horse	30	24	5	60	30	6	13	11	6	75
6. Lamb	56	29	25	40	36	3	1	Trace	--	40
7. Luncheon meats	36	24	11	59	45	7	Trace	7	--	61
8. Pork:										
a. Back, outer layer	38	26	12	58	46	6	--	6	--	64
b. Bacon	32	21	9	63	48	9	Trace	6	--	67
c. Liver	34	13	18	61	27	5	--	29	--	--
d. Other cuts	36	21	13	59	42	9	Trace	8	--	64
9. Rabbit, domesticated	38	28	4	58	35	11	2	10	--	66
Milk Fat:										
10. Buffalo, Indian	62	29	15	33	26	1	--	6	Trace	30
11. Cow	55	25	12	39	33	3	1	2	Trace	33
12. Goat	62	27	8	33	25	5	--	3	Trace	37
13. Human	46	22	7	[3]48	34	7	Trace	7	--	--
Poultry and Eggs:										
14. Chicken	32	24	7	[3]64	38	20	2	4	--	92
15. Turkey	29	22	6	[3]67	43	21	1	2	--	84
16. Chicken eggs	32	25	7	61	44	7	1	9	3	84
Fish and Shellfish:										
17. Eel, body	23	17	2	73	36(-2.6H)			37	--	119
18. Herring, body	19	11	1	77	19(-3.5H)			58	--	140
19. Menhaden, body	24	15	3	71	15	3	2	51	--	--
20. Salmon, body	15	12	2	79	26(-2.8H)			53	1	151
21. Tuna, body	25	18	3	70	25(-3.2H)			45	1	--
22. Turtle	44	16	7	51	31(-2.6H)			20	1	74
Separated Fats and Oils:										
23. Butter	55	25	12	39	33	3	1	2	Trace	33
24. Lard	38	31	7	57	46	10	1	Trace	Trace	64
Shortening, See item 69										
25. Codfish liver	15	12	1	81	25(-3.3H)			56	--	178
26. Halibut liver	17	13	Trace	72	31	--	--	41	7	120
27. Whale blubber	15	9	1	41	21(-2.4H)			20	40	87
PLANT PRODUCTS										
Cereals and Grains:										
28. Cornmeal, white	11	8	1	82	34	44	1	3	3	123
29. Millet (Foxtail)	31	10	14	61	20	35	6	--	3	120
30. Oats, rolled	22	13	4	74	32	41	1	Trace	--	--
31. Rice	17	12	2	74	39	35	--	--	5	100
32. Sorghum	12	7	5	81	37	44	--	--	3	122
33. Wheat flour, white	14	10	4	76	31	42	3	--	6	120
34. Wheat germ	15	11	4	77	23	48	6	--	4	129
Fruits and Vegetables including seeds:										
35. Avocado pulp	20	18	2	69	45	13	1	10	6	88
36. Cantaloup seed	15	10	4	79	26	53	--	--	1	126
37. Chickpea	9	4	2	87	50	36	--	1	--	114
38. Chocolate	56	23	33	39	37	2	--	--	Trace	37
39. Olives	11	9	2	84	76	7	--	1	1	84
40. Pigeonpea	33	--	--	57	6	46	5	--	6	104
41. Pumpkin seed	17	9	8	78	37	41	--	--	1	119
42. Rape seed	6	2	2	89	16	14	9	50	--	104
43. Sesame seed	14	8	4	80	38	42	--	Trace	2	114
44. Soybeans	20	11	7	75	16	52	7	Trace	--	128
45. Squash seed	18	12	6	77	35	42	--	--	1	121
46. Watermelon seed	17	10	6	78	18	59	--	1	1	128
Nuts and Peanuts:										
47. Almond	8	7	1	87	67	20	--	--	Trace	101
48. Beechnut	8	5	3	87	54	31	2	--	1	112
49. Brazil nut	20	14	6	76	48	26	--	2	--	--
50. Cashew	17	6	11	78	70	7	--	1	Trace	--
51. Coconut	86	10	2	8	7	Trace	--	1	1	9
52. Filbert (Hazelnut)	5	2	2	91	54	16	--	21	Trace	95
53. Hickory	8	6	1	87	68	18	--	1	1	94
54. Peanut	22	11	4	72	43	29	--	--	1	101
55. Peanut butter	26	11	6	70	45	25	--	--	Trace	100
56. Pecan	7	6	1	84	63	20	1	Trace	5	105
57. Pistachio	10	8	2	85	65	19	--	1	1	95
58. Walnut, black	6	3	2	90	35	48	7	--	Trace	135
59. Walnut, English	7	5	2	89	15	62	8	4	Trace	162
Separated Fats and Oils:										
60. Cacao butter	56	23	33	39	37	2	--	--	Trace	37
61. Corn oil	10	8	2	84	28	53	1	2	2	127
62. Cottonseed oil	25	22	2	71	21	50	--	--	--	109
63. Margarine [4]	26	21	3	70	57	9	Trace	4	--	72
64. Olive oil	11	9	2	84	76	7	--	1	1	84
65. Palm oil	45	39	4	49	40	8	Trace	1	1	51
66. Peanut oil	18	8	6	76	47	29	--	--	1	101
67. Safflower oil	8	3	4	87	15	72	--	--	1	146
68. Sesame oil	14	8	4	80	38	42	--	Trace	2	114
69. Shortening (animal and vegetable) [4]	43	27	12	53	41	11	1	Trace	--	59
70. Shortening (vegetable) [4]	23	14	6	72	65	7	Trace	Trace	--	75
71. Soybean oil	15	9	6	80	20	52	7	1	1	133
72. Sunflower oil	12	6	5	83	20	63	--	--	Trace	134

[1] Includes other saturated fatty acids in addition to palmitic and stearic.
[2] Trace is used to indicate values of 0.5 or less.
[3] Includes 1 gram arachidonic acid.
[4] Varies widely depending on the fats used.

This table has been developed from a review and compilation of analytical data available from the literature, 1920-1955, showing fatty acids as percent of total fatty acids. Although the figures in the table represent the best available, the present pace of research in this field may necessitate early revisions. Few data are available on fruits and vegetables, and many of the other values are based on a limited number of analyses.

The figures for fatty acids per 100 grams of ether extract (crude fat) shown in this table, have been computed from the data on fatty acids as percent of total fatty acids by correcting for glycerol in the fat and for the content of unsaponifiable matter reported in the ether extract of each food fat. Glycerol values are not shown in the table. To calculate fatty acids in foods, it is necessary only to multiply the amount (grams) of fat in a food portion by the value of each fatty acid.

This simplified table has been designed for practical use by dietitians, nutritionists, home economists, and others planning and appraising diets.

- -

Prepared by
Verz R. Goddard, Nutrition Specialist
Louise Goodall, Statistical Assistant
Human Nutrition Research Division
Agricultural Research Service
Washington, D. C. Issued March 1959

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price 5 cents.

GPO 871764

U